

Claims

1. A method of processing user speech data for transmission to a participant or participants in a push to talk session over a communications network, the method  
5 comprising:  
removing an initial period of silence from the speech data prior to replaying of the speech data to the or each other participant.
2. A method according to claim 1, wherein said speech data is an initial speech  
10 burst provided by the initiating party of the push to talk session.
3. A method according to claim 1 or 2, wherein said communication network is a cellular telephone network and the push to talk service is a Push to talk Over Cellular  
15 service.
4. A method according to any one of the preceding claims and comprising a step of analysing the speech data to identify an initial period of silence.
5. A method according to claim 4 when appended to claims 2 and 3, wherein said  
20 steps of analysing and removing are carried out prior to receipt by the network of a session acceptance by the or each other participant.
6. A method according to claim 4 or 5, wherein said step of analysing the speech data to identify an initial period of silence is carried out at one of: a terminal of the  
25 initiating party, a node within the communication network, or a receiving terminal.
7. A method according to any one of the preceding claims, wherein the step of removing an initial period of silence from the transmitted speech data is carried out at a terminal of the initiating party, a node within the communication network, or a  
30 receiving terminal.
8. A method according to claim 7 when appended to claim 3, wherein the network node is a Media Resource Function node.

9. A method according to claim 7 when appended to claim 3, wherein the network node is located within an IP Multimedia Subsystem (IMS).
10. A method according to any one of the preceding claims and comprising  
5 monitoring the audio level to determine when speech has started.
11. A method according to any one of claims 1 to 9 and comprising predefining an initial period expected to contain silence, and clipping the start of the speech data remove the predefined period.  
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12. A method according to claim 11, wherein the predefined period is fixed or is adapted in dependence upon subscriber behaviour.
13. A server node for use in a communication network offering a push to talk  
15 service to subscribers, the node comprising:  
a receiver for receiving a speech burst from a participant in a push to talk session; and  
a processor for detecting an initial period of silence in the speech data burst and removing the detected period of silence from the speech data prior to transmission to the  
20 or each other participant in the session.
14. A server node according to claim 13 and being arranged to be located within an IP Multimedia Subsystem of a cellular telephone communications network, the node having an interface to one or more Session Initiation Protocol (SIP) servers including a  
25 Serving Call Session Control Function (S-CSCF) server.
15. A mobile terminal for use in a communication network offering a push to talk service to subscribers, the terminal comprising:  
a receiver for receiving speech data from a terminal user; and  
30 a processor for removing a period of silence from the speech data prior to transmission to the or each other terminal participating in the session.

16. A terminal according to claim 15, the terminal being a wireless terminal and the communication network being a cellular telephone network offering a Push to talk Over Cellular service.
- 5 17. A terminal according to claim 15 or 16, wherein the receiver comprises means for converting speech into an analogue or digital electrical signal.
18. A terminal according to claim 15 or 16, wherein the receiver comprises means for receiving speech data over an interface link to said communication network, the  
10 speech data having been generated at a peer mobile terminal.